Origin of blood stem cells found to be in the lining of blood vessels

Posted: December 4, 2008

Created: 04/12/2008 - 11:51

Researchers at UC, Los Angeles have found that blood-forming stem cells in mice have their origins in the endothelial cells that line blood vessels during mid-gestation. These cells eventually move to the bone marrow where they generate all the cells of the blood system throughout life. Researchers have long known that blood-forming stem cells arise from the blood vessels, but didn't know exactly which cell type acted as the source. Now that the source is know, the researchers want to learn what signals those endothelial cells to begin producing blood-forming stem cells. This information could eventually help researchers learn how to create those stem cells in the lab and maintain the cells in the stem cell state rather than forming mature cell types. Currently, it isn't possible to grow blood stem cells in large quantity in the lab. Having a source of these cells would be useful for bone marrow transplants to treat cancer or for research purposes.

Cell Stem Cell: December 4, 2008
CIRM funding: Ann Zovein (T1-00005)

Related Information: Press release,The Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at UCLA

Tags: Zovein, Training, University of California Los Angeles, Understanding Stem Cell Biology